

### IDENTIFICATION TAG

#### ID TAG NOTE:

TAG SHALL BE ALUMINUM OR STAINLESS STEEL AND ATTACHED TO POLE USING TWO RIVETS OR STAINLESS STEEL DRIVE SCREWS. ID TAG HOLES SHALL BE DRILLED PRIOR TO GALVANIZING.

\*INCLUDING REVISION

#### GENERAL NOTES:

ALL DIMENSIONS SHOWN ARE IN mm UNLESS OTHERWISE NOTED.

THE CORRECT MOUNTING HEIGHT WILL BE OBTAINED BY ADJUSTING DOWNWARD FROM THE 150 mm MIN. CLEARANCE BETWEEN THE POLE CAP AND THE TOP OF THE BRACKET ARM MOUNT.

HOLES SHALL BE PUNCHED ONLY FOR SPECIFIED BOLT CIRCLE.

TRANSFORMER BASE SHALL BE CERTIFIED AS MEETING THE BREAKAWAY CRITERIA AND STRUCTURAL REQUIREMENTS AS SET BY THE CURRENT AASHTO "STANDARD SPECIFICATIONS FOR STRUCURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES, AND TRAFFIC SIGNALS" AND MEET THE BREAKAWAY REQUIREMENTS OF NCHRP 350.

HANDHOLE SHALL BE APPROX. 102 mm X 165 mm. HANDHOLE FRAME SHALL BE REINFORCED SO THAT THE POLE STRENGTH IS NOT REDUCED.

TRANSFORMER BASES FOR 13.5 m MOUNTING HEIGHT SHALL BE FURNISHED WITH ONE DRILLED AND TAPPED HOLE AND GROUNDING LUG FOR GROUNDING EQUIPMENT.

ALL JUNCTION BOXES SHALL CONFORM TO SECTION 1062 OF THE STANDARD SPECIFICATIONS.

TYPE AT POLES SHALL BE EQUIPED WITH THE GROUNDING LUG INSIDE THE TRANSFORMER BASE. TYPE B AND MB POLES SHALL BE EQUIPED WITH A GROUNDING LUG INSIDE THE POLE.

POST SHALL BE GROUNDED FROM GROUND LUG IN POST WITH #6 AWG BARE COPPER WIRE TO CONDUIT SYSTEM. GROUND LUG SHALL BE 90° OR 180° FROM HANDHOLE.

THE CABLE ENTRANCE AT THE BRACKET ARM SHALL BE A FIELD DRILLED 32 mm DIA. HOLE.

MISSOURI HIGHWAYS AND TRANSPORTATION  
COMMISSION

### HIGHWAY LIGHTING POLES, FOUNDATIONS AND APPURTENANCES FOR 13.5 m MOUNTING HEIGHT

DATE: \_\_\_\_\_

EFFECTIVE: 07-01-2004

**M901.01AB**

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TYPE AT POLE				
BRACKET SPREAD				1.8mm OR 4.6mm
MAX. LUMINAIRE WEIGHT				0.31 sq. m
MAX. PROJECTED AREA				AT-13.5
DESIGN NO.	X (m)	A (mm)	B (mm)	D * (NOMINAL) (mm)
1	15.2	VAR.	150 MIN.	254
2	13.7	VAR.	150 MIN.	254
3	12.2	VAR.	150 MIN.	254
4	10.7	VAR.	150 MIN.	254
5	9.2	VAR.	150 MIN.	254

\* THE MINIMUM ALTERNATE DIAMETER SHALL BE 254mm FOR A 15.2m POLE, 241mm FOR A 13.7m POLE, 229mm FOR A 12.2m POLE, 216mm FOR A 10.7m POLE AND 203mm FOR A 9.2m POLE

TYPE B POLE			
BRACKET SPREAD		1.8mm OR 4.6mm	
MAX. LUMINAIRE WEIGHT		27 kg	
MAX. PROJECTED AREA		0.31 sq. m	
SINGLE BRACKET ARM			
LOCATION	BRACKET SPREAD	D NOM.	ANCHOR BOLT DIA.
BRIDGE SAFETY BARRIER CURB	1.8mm	254mm	317mm
TRUSSED BRACKET ARM			
LOCATION	BRACKET SPREAD	D NOM.	ANCHOR BOLT DIA.
BRIDGE SAFETY BARRIER CURB	4.6mm	254mm	317mm

ANSI LAMPS			
FUSE RATING	DESIGNATION HPS	WATTS	INITIAL LUMENS
3A	S55	150	16,000
5A	S50	250	27,500
7A	S51	400	50,000
TYPE III MEDIUM DISTRIBUTION SEMI-CUTOFF UNLESS OTHERWISE SPECIFIED ON PLANS			

TYPE MB POLE		
BRACKET SPREAD		1.8mm OR 4.6mm
MAX. LUMINAIRE WEIGHT		27 kg
MAX. PROJECTED AREA		0.31 sq. m
DOUBLE BRACKET ARM		
LOCATION	BRACKET SPREAD	D NOM.
MEDIAN BARRIER CURB	1.8mm	254mm
DOUBLE TRUSSED BRACKET ARM		
LOCATION	BRACKET SPREAD	D NOM.
MEDIAN BARRIER CURB	4.6mm	254mm

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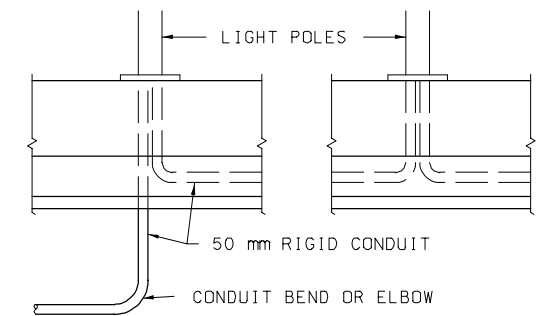
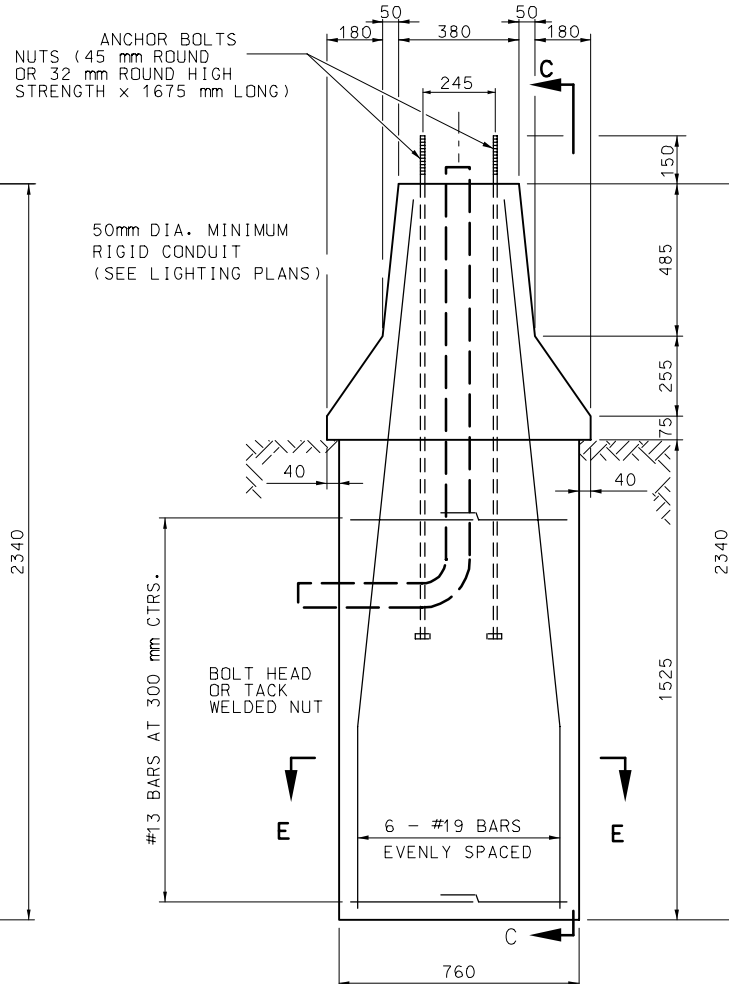
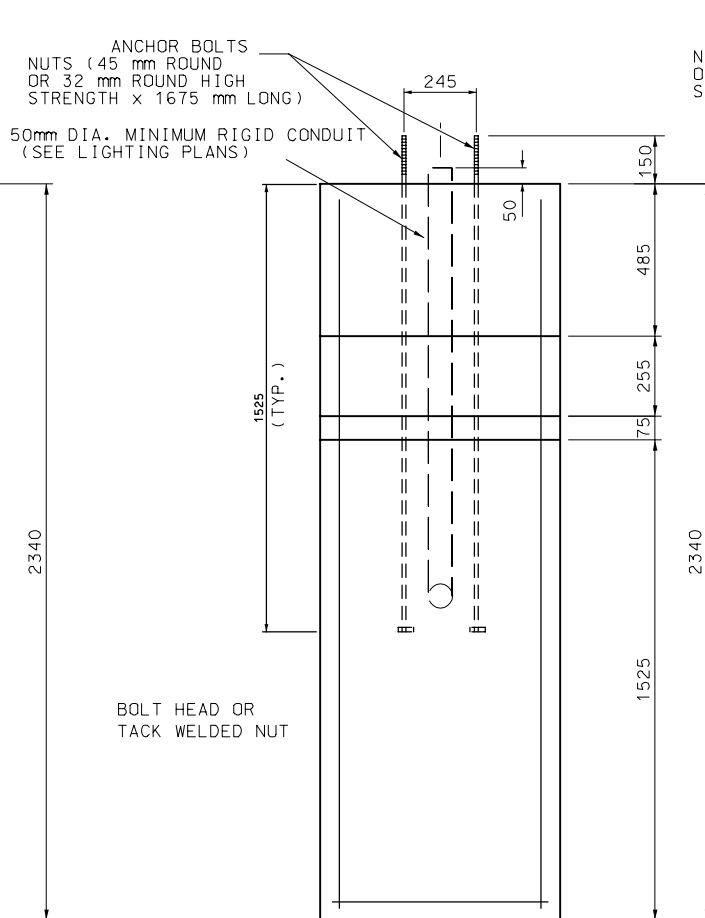
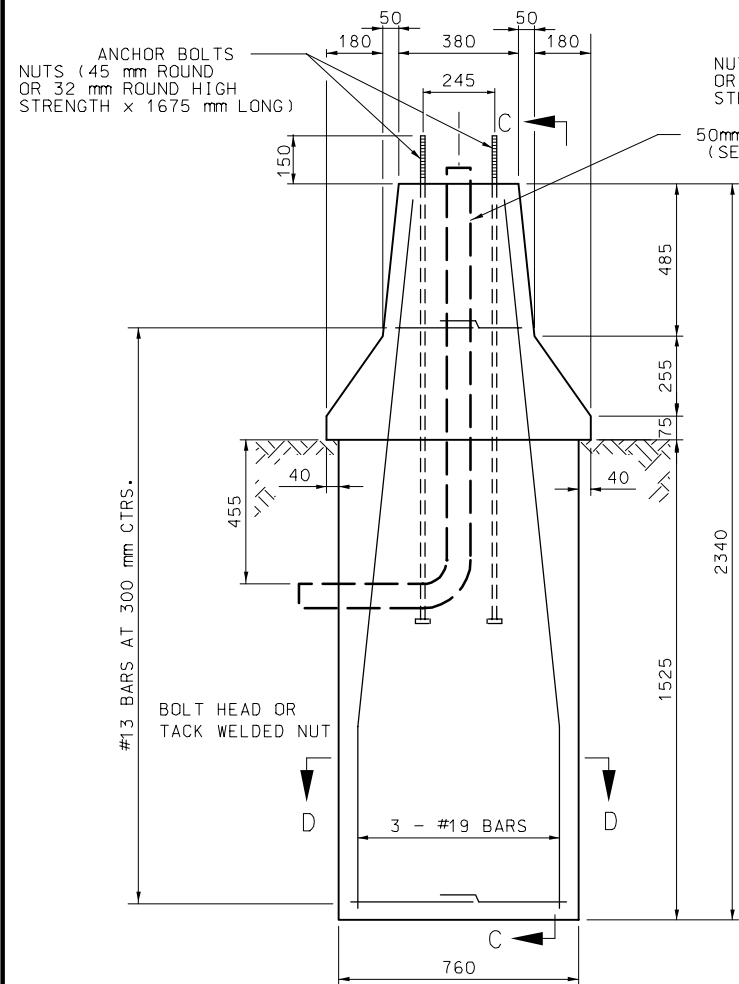
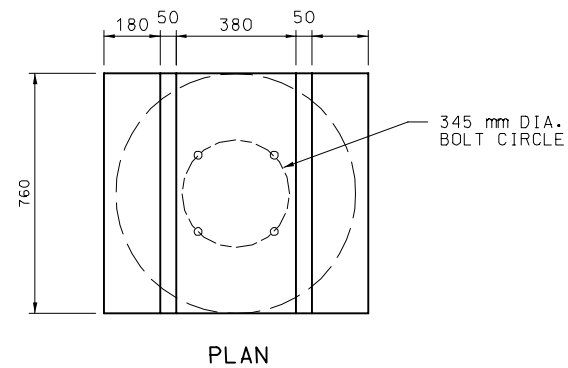
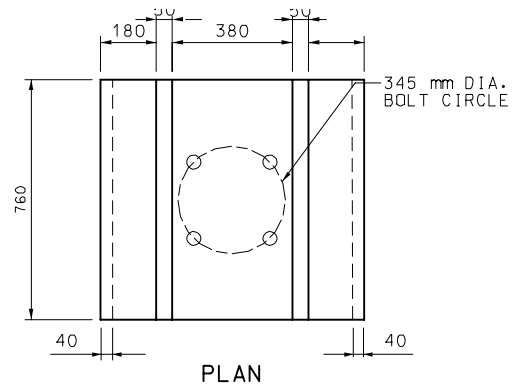
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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION			
		HIGHWAY LIGHTING POLES, FOUNDATIONS AND APPURTENANCES FOR 13.5 m MOUNTING HEIGHT	
DATE:_____	EFFECTIVE: 07-01-2004	M901.01AB	3 6



CONDUIT DETAIL FOR  
ALTERNATE 1 & 2

#### GENERAL NOTES:

ALL DIMENSIONS SHOWN ARE IN mm UNLESS OTHERWISE NOTED.

ALL FOUNDATIONS SHALL INCLUDE 4 ANCHOR BOLTS AND NUTS PLACED AS SHOWN.

ALL ANCHOR BOLTS SHALL BE FULLY GALVANIZED 25 mm DIA. HIGH STRENGTH ANCHOR BOLTS.

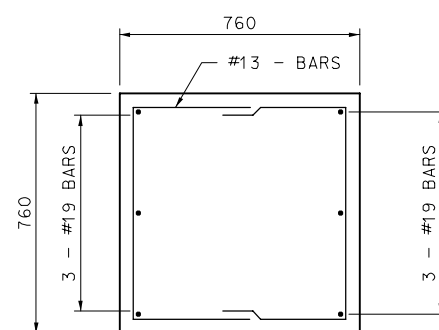
TOUNGE AND GROOVE REQUIRED ON MEDIAN BARRIER SECTION FOR TYPE MB POLES WHEN ADJACENT MEDIAN BARRIER IS PRECAST, FOR DETAILS, SEE STANDARD PLANS.

ELEVATION  
ALTERNATE 1

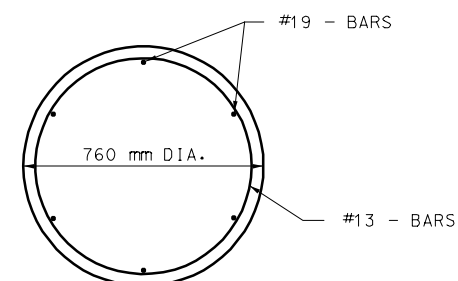
SECTION C-C

ELEVATION  
ALTERNATE 2

#### CONCRETE MEDIAN BARRIER AND FOUNDATION DESIGN FOR TYPE MB LIGHT POLE



SECTION D-D



SECTION E-E

MISSOURI HIGHWAYS AND TRANSPORTATION  
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#### HIGHWAY LIGHTING POLES, FOUNDATIONS AND APPURTENANCES FOR 13.5 m MOUNTING HEIGHT

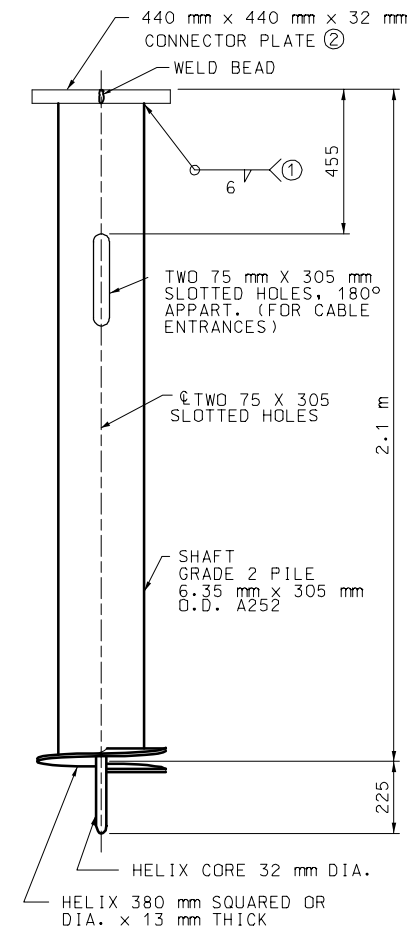
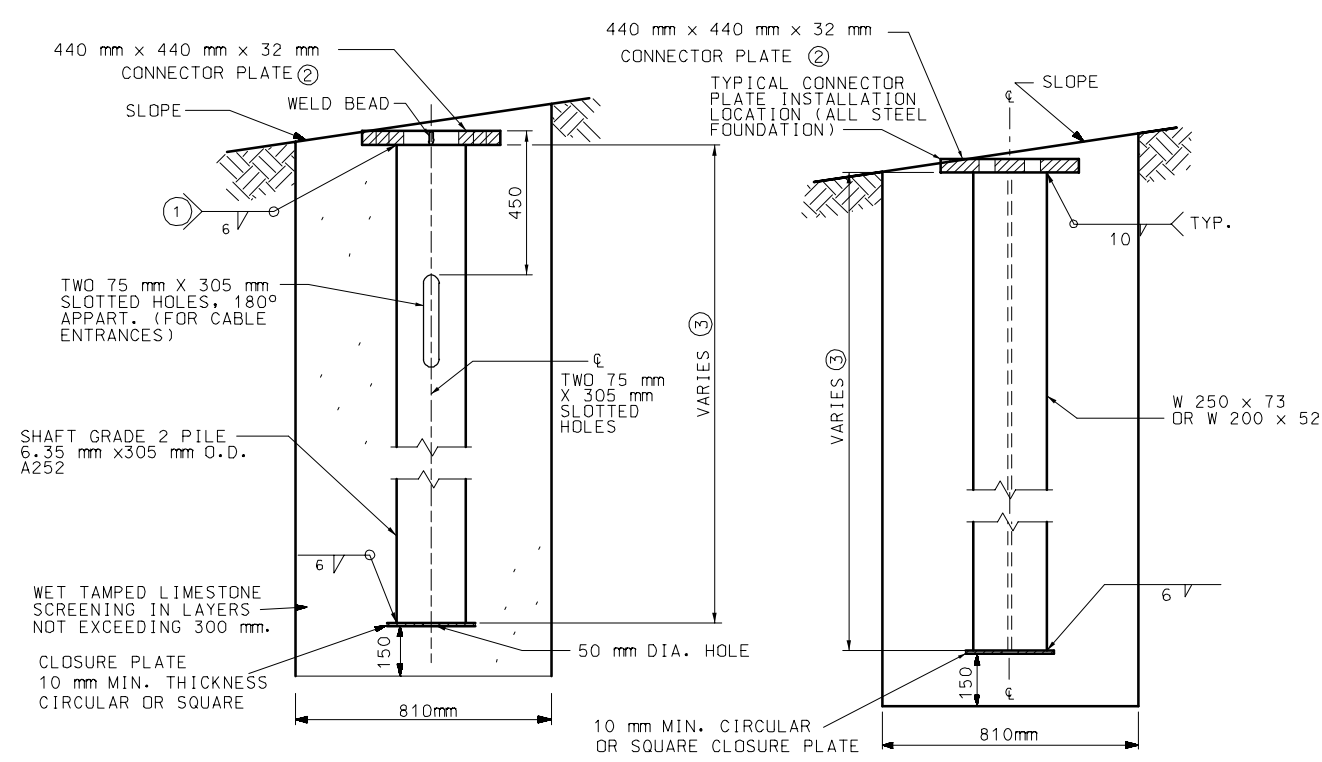
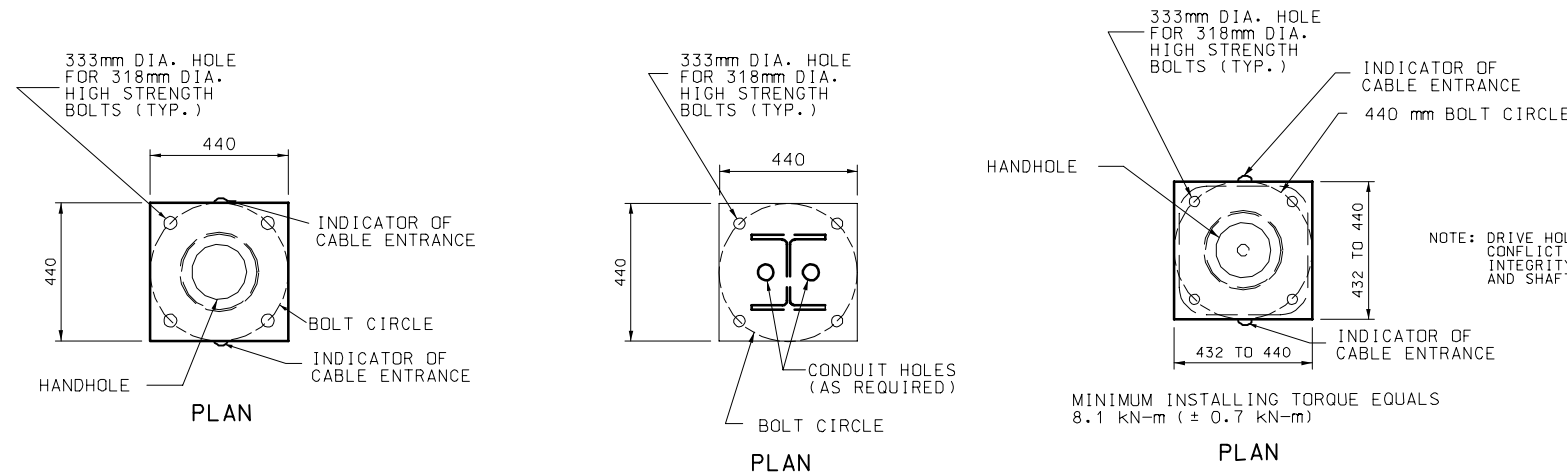
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- ① GRIND WELD AS NECESSARY TO CLEAR BOLT HEAD.
  - ② FOUNDATIONS SHALL BE INSTALLED SO THAT CONNECTOR PLATES ARE LEVEL PERPENDICULAR TO THE BRACKET ARM AND SLOPED FOR POLE RAKING PARALLEL TO THE BRACKET ARM.
  - ③ PILE LENGTHS FOR STEEL PILE FOUNDATIONS:
- | AT-45<br>DESIGN NO. | PILE LENGTH |
|---------------------|-------------|
| 4 & 5               | 2.4 m       |
| 2 & 3               | 2.7 m       |
| 1                   | 3.0 m       |

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ALL CLASSIFICATIONS ARE ASTM UNLESS OTHERWISE NOTED. SEE STANDARD SPECIFICATIONS FOR CLASSIFICATIONS NOT SHOWN.

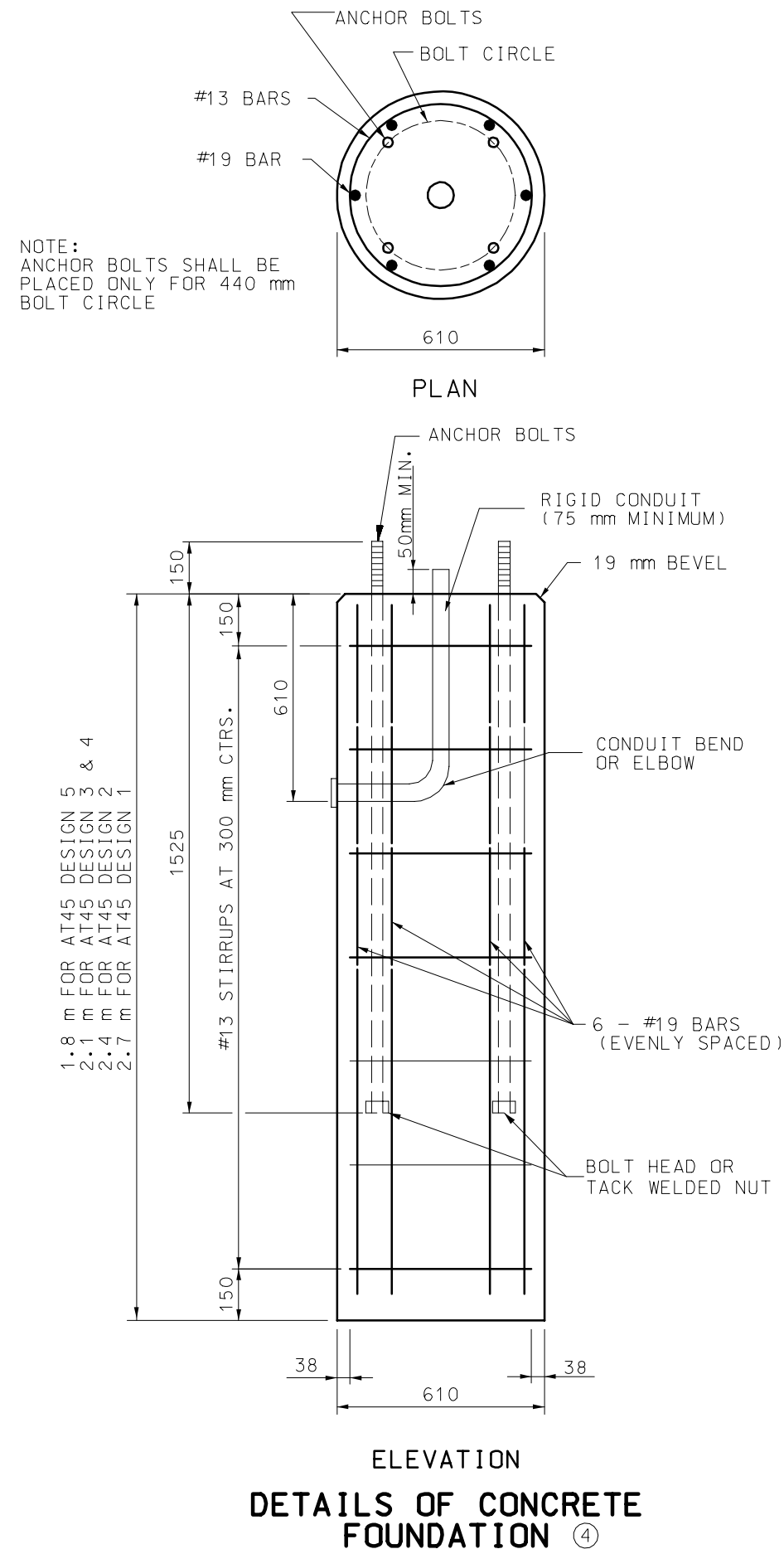
ALL BOLT CIRCLES FOR 13.5 m MOUNTING HEIGHT SHALL BE 440 mm.

ALL CONECTOR PLATE AND CLOSURE PLATE THICKNESSES SHOWN ARE MINIMUM DIMENSIONS.

ALL ANCHOR BOLTS SHALL BE FULLY GALVANIZED 30 mm DIA. HIGH STRENGTH ANCHOR BOLTS.

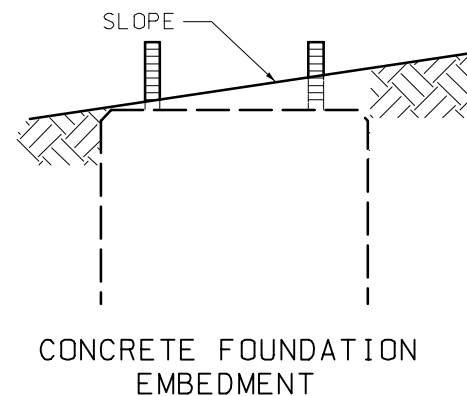
ALL STEEL COMPONENTS SHALL BE HOT DIP GALVANIZED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION			
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- ④ AT THE OPTION OF THE CONTRACTOR THE CONCRETE FOUNDATIONS MAY BE PRECAST. IF PRECAST, THEY SHALL BE SET IN DRILLED HOLES 915 mm IN DIAMETER AND 150 mm DEEPER THAN THE BOTTOM OF THE CONCRETE FOUNDATION. THE BOTTOM 150 mm OF THE HOLE AND THE REMAINING SPACE AROUND THE FOUNDATION SHALL BE BACKFILLED WITH WET TAMPED LIMESTONE SCREENINGS IN LAYERS NOT EXCEEDING 300 mm.

QUANTITIES		
	CONC.	REINF.
HEIGHT	m <sup>3</sup>	kg
1.8	0.53	31
2.1	0.61	37
2.4	0.70	43
2.7	0.79	49



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